

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process comprising:

pressing an electrical bump against a film, wherein the electrical bump is disposed on a substrate; and forming a stress-compensation layer against the electrical bump, the substrate, and the film, wherein pressing an electrical bump against a film includes embedding the electrical bump in the film in a range from about 5% embedded to about 95% embedded.

2. (Original) The process of claim 1, further including removing the film.

3. (Original) The process of claim 1, wherein removing the film at least partially exposes the electrical bump.

4. (Canceled)

5. (Original) The process of claim 1, wherein forming a stress-compensation layer includes a process selected from capillary underfill, vacuum-assisted capillary underfill, positive-pressure assisted capillary underfill, and injection molding underfill.

6. (Original) The process of claim 1, wherein forming a stress-compensation layer includes a process of forming a particulate-containing stress-compensation layer.

7. (Original) The process of claim 1, further including curing the stress-compensation layer, selected from ultraviolet curing, microwave curing, thermal curing, chemical curing, timed curing, and combinations thereof.

8. (Original) The process of claim 1, further including:
curing the stress-compensation layer; and

coupling the electrical bump with an electrical contact.

9. (Currently Amended) A process comprising:

pressing an electrical bump against a film, wherein the electrical bump is disposed on a substrate;

forming a stress-compensation layer against the electrical bump, the substrate, and the film ~~The process of claim 1, further including:~~

curing the stress-compensation layer; and

coupling the electrical bump with an electrical contact, wherein curing the stress-compensation layer follows coupling the electrical bump.

10. (Original) A process comprising:

pressing an electrical bump in a ball grid array disposed on a substrate against a compressible film under conditions to at least partially embed the electrical bump into the compressible film;

forming a stress-compensation layer between the substrate and the compressible film; and removing the compressible film.

11. (Original) The process of claim 10, further including curing the stress-compensation layer.

12. (Original) The process of claim 10, further including curing the stress-compensation layer, selected from ultraviolet curing, microwave curing, thermal curing, chemical curing, timed curing, and combinations thereof.

13. (Original) The process of claim 10, wherein pressing an electrical bump includes embedding the electrical bump in the compressible film in a range from about 10% embedded to about 90% embedded.

14. (Original) The process of claim 10, wherein forming a stress-compensation layer includes a process selected from capillary underfill, vacuum-assisted capillary underfill, positive-pressure assisted capillary underfill, and injection molding compound underfill.

15. (Original) The process of claim 10, wherein forming a stress-compensation layer includes a process selected from capillary underfill, vacuum-assisted capillary underfill, positive-pressure assisted capillary underfill, and injection molding compound underfill, the process further including:

curing the stress-compensation layer, selected from ultraviolet curing, microwave curing, thermal curing, chemical curing, timed curing, and combinations thereof.

16. (Original) The process of claim 10, wherein forming a stress-compensation layer includes a process of forming a particulate-containing stress-compensation layer.

17-30. (Canceled)

31. (Currently Amended) A process comprising:

pressing an electrical bump against a film, wherein the electrical bump is disposed on a substrate;

forming a stress-compensation layer against the electrical bump, the substrate, and the film; and The process of claim 1, further including

pushing the electrical bump into an uncured polymer spot that is disposed upon a board.

32. (Previously Amended) The process of claim 10, further including pushing the electrical bump into an uncured polymer spot that is disposed upon a board.

33. (Previously Amended) A process comprising:

pressing a flexible film with a press plate against an electrical bump, wherein the electrical bump is disposed on a substrate; and

flowing a stress-compensation layer precursor material between the flexible film and the substrate to form a stress-compensation layer against the electrical bump, the substrate, and the film.

34. (Previously Amended) The process of claim 33, wherein pressing the flexible film with a press plate includes a press plate with a plate extension to form a mold chase between the flexible film and the substrate.

35. (Previously Amended) The process of claim 33, further including placing the substrate above and on a jig, followed by pressing the flexible film.

36. (Previously Amended) The process of claim 33, wherein flowing a stress-compensation layer precursor material includes injection molding a material selected from a resin, an epoxy, a cyanate ester, a polyimide, a polybenzoxazole, a polybenzimidazole, a polybenzothiazole, and combinations thereof.

37. (Previously Amended) The process of claim 33, further including:
first heating the stress-compensation layer precursor material to a temperature range from about 100° C to about 140° C; and
second holding the stress-compensation layer precursor material for a time from about 10 seconds to about 30 minutes.

38. (Previously Amended) The process of claim 33, further including:
first heating the stress-compensation layer precursor material to a temperature range from about 100° C to about 140° C;
second holding the stress-compensation layer precursor material for a time from about 10 seconds to about 30 minutes;
removing the film; and followed by
pushing the electrical bump into an uncured polymer spot that is disposed upon a board.

39. (Previously Amended) The process of claim 33, further including pushing the electrical bump into an uncured polymer spot that is disposed upon a board.

40. (Previously Amended) A process comprising:

pressing an electrical bump in a ball grid array disposed on a substrate, with a press plate against a compressible film under conditions to at least partially embed the electrical bump into the compressible film;

injection molding a stress-compensation layer between the substrate and the compressible film;

reflowing the electrical bump; followed by

first heating the stress-compensation layer precursor material to a temperature range from about 100° C to about 140° C;

second holding the stress-compensation layer precursor material for a time from about 10 seconds to about 30 minutes; and

removing the compressible film.

41. (Previously Amended) The process of claim 40, further including placing the substrate above and on a jig, followed by pressing the flexible film.

42. (Previously Amended) The process of claim 40, wherein injection molding a stress-compensation layer includes a process of forming a particulate-containing stress-compensation layer.

43. (Previously Amended) The process of claim 40, further including pushing the electrical bump into an uncured polymer spot that is disposed upon a board.

44. (Previously Amended) The process of claim 40, wherein injection molding a stress-compensation layer includes a process of forming a particulate-containing stress-compensation layer, the process further including:

placing the substrate above and on a jig, followed by pressing the flexible film; and after removing the flexible film

pushing the electrical bump into an uncured polymer spot that is disposed upon a board.